

**MULTIPARALLEL THREE DIMENSIONAL OPTICAL
MICROSCOPY SYSTEM**

ABSTRACT

5 A system for imaging of a sample is disclosed. The system includes a
plurality of detectors which are each focussed at a respective focal plane in a sample
volume. The system also includes light selection optics positioned between the
plurality of detectors and the sample volume. The light selection optics transmit to
the detectors a portion of light originating at the respective focal planes while
10 screening out light which originates from outside of the respective focal planes.